

## ABSTRACT OF THE DISCLOSURE

An integrated process for upgrading a mixed C<sub>4</sub> or mixed C<sub>5</sub> alkane/isoalkane stream first separates the iso from the normal alkane by distillation. Then a portion of the normal alkane is dehydrogenated to the corresponding alkene. The isoalkane and normal alkene are then fed to an alkylation unit where they are reacted together to form a branched chain alkane having a desirable octane number. If desired a portion of the separated normal alkane may be skeletally isomerized to additional isoalkane.

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